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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/445,088	12/02/1999	YUICHIRO NAKAYA	520.37902X00	9448

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EXAMINER

LEE, RICHARD J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 08/26/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/445,088

Applicant(s)
Nakaya

Examiner
Richard Lee

Art Unit
2613



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 5, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.
- ## Disposition of Claims
- 4) ☒ Claim(s) 53-84 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 53-84 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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1. The amendment filed May 1, 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The particular amendment at page 23 of the Specification to include the "+" sign in equation (12) constitutes new matter. The applicant indicates at page 12 of the amendment filed May 1, 2003 that such change is consistent with original claim 3. Upon further review, it is however determined that original claim 3 does not correspond with equation (12) as amended in the May 1, 2003 amendment.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. Claims 54-56, 58, 60, 62, 64, 66, and 68 are objected to because of the following informalities:

(1) claim 54, line 24, before " $i + p$ ", "(" should be inserted for clarity;

(2) claim 55, line 22, after " $u(x+w)$ ", ")" should be deleted for clarity; and

(3) claim 56, line 21, after " $u(x+w)$ ", ")" should be deleted for clarity.

Appropriate correction is required.

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3. Claims 76, 80, 83, and 84 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For examples:

(1) claim 76, lines 14-15, "said image" shows no clear antecedent basis (see claim 53, line 2, claim 76, lines 4-7, line 13);

(2) claim 80, lines 1-2, "said first step" shows multiple antecedent basis (see claim 53, line 3, claim 75, line 3);

(3) claim 80, line 3, "said frame" shows multiple antecedent basis (see claim 75, lines 4-5);

(4) claim 83, lines 2-3, "said image" shows multiple antecedent basis (see claim 53, line 2, claim 77, line 7); and

(5) claim 84, line 2, "said motion vectors at the corners of said image" shows no clear antecedent basis. In addition, "said image" shows multiple antecedent basis (see claim 53, line 2, claim 77, line 7).

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 55 and 56 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession

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of the claimed invention. The Specification does not provide support for equation $v(x+w, y+w)$ as claimed in claim 55, lines 27-28. The difference between equation $v(x+w, y+w)$ as claimed and that shown at page 23 of the Specification is the "+" after "(y+w)" in the equation. Since the equation as claimed is different from that specified in the disclosure, such limitation as claimed constitutes as new matter (see above paragraph (1)). In addition, the Specification does not provide support for equations $uT(x+w)$, $vT(x+w)$, $uB(x+w)$, $vB(x+w)$, $u(x+w, y+w)$, $v(x+w, y+w)$ as claimed in claim 56, lines 9-12, lines 19-21, lines 24-27.

The applicant indicates at page 12 of the amendment filed May 1, 2003 and at pages 15-16 of the amendment filed June 5, 2003 that support for claim 56 is provided at page 24, lines 10-24 of the Specification, claim 56 may be obtained by changing uL , vL , uR , vR , y and q in claim 3, and that the equations are part of original claim 4. Upon further review, it is however determined that page 24, lines 10-24 of the Specification provides some literature that does not seem relevant to the equations in question and therefore adequate support can not be found for the equations as claimed. The particular modification of variables in claim 3 to derive the equations of claim 56, as stated by the applicant is however not considered a step that is within one skilled in the art. And it is nowhere found in the Specification how such modifications are taught to derive the equations and the Specification simply does not show any of the equations as claimed. Further, it is determined that the equations shown in original claim 4 do not correspond with those in claim 56.

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6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 53-84 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Independent claims 53 and 54 have currently been amended from previous canceled claims 1 and 2, respectively to include the limitation "for encoding/decoding image information" in the preamble in an attempt to overcome the 35 U.S.C. 101 rejection on the claims. Claims 53 and 54 still however recite various steps of calculations that solves a purely mathematical problem without limitation to a practical application, essentially a series of steps to be performed on a computer, and merely manipulates an abstract idea which lacks any use. And claims 53 and 54 respectively still do not provide an end product or physical application to further provide any useful, concrete, and tangible results as required to fall within the statutory classes set forth in 35 U.S.C. 101 and in view of State Street Bank & Trust Co. V. Signatures Fin. Group, Inc. Even though current independent claims 53 and 54 respectively provide an interlink between the preamble and the body of the claims, as argued at pages 13-14 of the amendment filed May 1, 2003 and at pages 16-17 of the amendment filed June 5, 2003, another requirement of providing an end product or physical application is required in order to overcome a rejection under 35 U.S.C. 101. The body of claims 53 and 54, respectively, calls for various steps of calculating the motion vectors between the interframe predicted image and the reference image, and unless the preamble provides a positive link to the body of the claims and thereby further providing an end

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product or physical application, claims 53 and 54 are rejected under 35 U.S.C. 101. Though the predicted image may be obtained by use of motion vectors as argued, it is however that the particular “for encoding/decoding image information” as provided in the preambles of respective claims 53 and 54 in the present case do not provide the required end product or physical application to further provide useful, concrete, and tangible results. And since dependent claims 55-84 are directed to further computational limitations, claims 53-84 as a whole for reasons above do not fall within the statutory classes set forth in 35 U.S.C. 101.

In order to overcome the above 35 U.S.C. 101 rejection, it is suggested that “to produce motion vectors” should be properly inserted after “image information” at claim 53, line 2 and claim 54, line 2, respectively.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however,

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will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. **Any response to this final action should be mailed to:**

Box AF

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:


(703) 872-9314, (for formal communications; please mark "EXPEDITED
PROCEDURE") (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA., Sixth Floor (Receptionist).

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (703) 308-6612. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group customer service whose telephone number is (703) 306-0377.


RICHARD LEE
PRIMARY EXAMINER

Richard Lee/rl



8/22/03